

20. The method of Claim 16 wherein the variably resistive portion defines a switching range in which its resistivity is altered substantially at a selected pressure thereto, and the delivering step comprises the step of increasing Rf heating of tissue in any time interval that said variably resistive portion is at or above said switching range.

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21. A surgical probe for delivering energy to tissue, comprising:

an elongated probe having a working end that defines an engagement plane for contacting

tissue;

a layer portion inward of said engagement plane comprising a material having a thermally sensitive resistance to electrical current flow therethrough;

at least one electrode carried in said working end operatively connected to a voltage source.

22. The working end of Claim 21 wherein said layer portion is exposed in said engagement plane.

22. The working end of Claim 21 wherein said engagement plane carries an electrode.

23. The working end of Claim 21 wherein first and second polarity electrodes in the working end are spaced apart by an intermediate portion having a thermally sensitive resistance.

24. The working end of surgical probe of Claim 21 wherein said material having a thermally sensitive resistance is selected from the class of materials consisting of positive temperature coefficient materials and negative temperature coefficient materials.

25. The working end of Claim 21 wherein said material having a thermally sensitive resistance is a conductively doped foam.

26. The working end of Claim 22 wherein said material having a thermally sensitive resistance is a
5 conductively doped silicone.

27. The working end of Claim 26 wherein said conductively doped silicone has an open cell structure.

28. The working end of Claim 21 wherein said material having a thermally sensitive resistance is a conductively doped zirconium oxide.

29. The working end of Claim 21 wherein layer portion defines a gradient of thermally sensitive resistance across a selected dimension thereof.

30. The surgical probe of Claim 21 wherein the working end has a linear configuration.

31. The surgical probe of Claim 21 wherein the working end defines at least one radius of curvature.

32. The surgical probe of Claim 21 wherein the working end has a helical configuration.

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33. The surgical probe of Claim 21 further comprising an independent cutting electrode at a distal tip of the working end.

34. The working end of Claim 27 further comprising a fluid source coupled to said open cell compressible material for delivering fluid thereto.

5 35. A surgical probe for delivering energy to tissue, comprising:
an elongated probe body having a working end that defines an engagement plane for contacting tissue;
an outer body portion extending inward of said engagement plane that comprises a material having a resistance to electrical flow therethrough that varies substantially with pressure applied thereto; and
a conductive portion carried at an interior of the probe that is operatively connected to a voltage source.

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36. The working end of Claim 35 further comprising a medial body portion of a material having a resistance to electrical flow therethrough that varies substantially with temperature, said medial body portion extending inward of said outer body portion.

37. The working end of Claim 35 wherein said outer body portion has a resistance to electrical flow therethrough that decreases with pressure applied thereto.

20 38. The working end of Claim 35 wherein said outer body portion has a resistance to electrical flow therethrough that increases with pressure applied thereto.